National Institute of Environmental Health Sciences

Climate change impacts on water salinity and health

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Abstract:

It is estimated that 884 million people do not have access to clean drinking water in the world. Increasing salinity of natural drinking water sources has been reported as one of the many problems that affect low-income countries, but one which has not been fully explored. This problem is exacerbated by rising sea-levels, owing to climate change, and other contributing factors, like changes in fresh water flow from rivers and increased shrimp farming along the coastal areas. In some countries, desalination plants are used to partly remove salt and other minerals from water sources, but this is unlikely to be a sustainable option for low-income countries affected by high salinity. Using the example of Bangladesh as a model country, the following research indicates that the problem of salinity can have serious implications with regard to rising rates of hypertension and other public health problems among large sectors of the worldwide population. © 2011.

Source: http://dx.doi.org/10.1016/j.jegh.2011.09.001

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Quality, Food/Water Security, Sea Level Rise

Food/Water Quality: Other Water Quality Issue

Water Quality (other): Salinity

Geographic Feature:

resource focuses on specific type of geography

Freshwater

Geographic Location:

resource focuses on specific location

Non-United States, United States

Non-United States: Asia, Australasia, Europe, Central/South America

Asian Region/Country: Other Asian Country

Other Asian Country: Bangladesh

European Region/Country: European Country

Other European Country : The Netherlands

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Dermatological Effect, Developmental Effect, Infectious Disease, Respiratory Effect

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): Hypertension

Developmental Effect: Reproductive

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: General Foodborne/Waterborne Disease

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Pregnant Women

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content